

CLAIMS

[1] A polyoxymethylene resin composition comprising

(A) a polyoxymethylene resin;

(B) a polymer having at least one block made of a hydrogenated aromatic vinyl compound-conjugated diene compound random copolymer having the main dispersion peak of $\tan \delta$ at 60°C or below in the viscoelastic spectrum, and optionally

(C) a polyolefin resin,

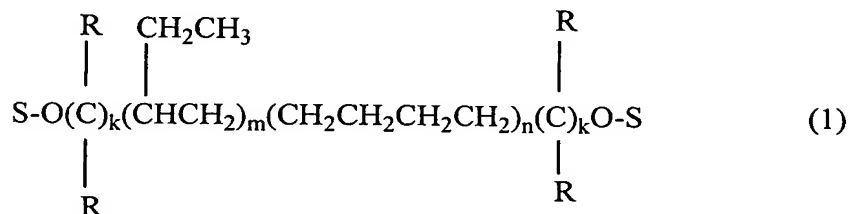
wherein the amount of (A) ranges from 10 to 99.5 parts by weight and the total amount of (B) and (C) ranges from 0.5 to 90 parts by weight, each per 100 parts by weight of the sum of (A), (B) and (C), and the (B)/(C) weight ratio ranges from 100/0 to 20/80.

[2] A polyoxymethylene resin composition according to claim 1, which further comprises (D) a silicone-grafted polyolefin resin in an amount of 0.1 to 30 parts by weight per 100 parts by weight of the sum of (A), (B) and (C).

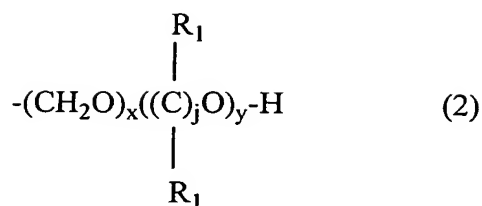
[3] A polyoxymethylene resin composition according to claim 1 or 2, which further comprises (E) a lubricant and/or (F) an inorganic filler in amounts of 0.05 to 20 parts by weight and 0.1 to 150 parts by weight, respectively, per 100 parts by weight of the sum of (A), (B) and (C).

[4]. A polyoxymethylene resin composition according to any one of claims 1 to 3, wherein the

polyoxymethylene resin of component (A) is a polyoxymethylene block copolymer (A-1) having a number average molecular weight of 10,000 to 500,000 and represented by the following formula (1):



wherein the portion other than S (hereinafter referred to as the block T) is a hydrogenated liquid polybutadiene residue having a hydroxyalkyl group at each end and having a number average molecular weight of 500 to 10,000 in which $m = 2$ to 98 mole%, $n = 2$ to 98 mole%, $m + n = 100$ mole% and the units in an amount of m are present at random or in the form of a block(s) with respect to the units in an amount of n , and the block T may be one which has unsaturated bonds and has an iodine number of 20 g-I₂/100 g or less; each of two k 's, which may be the same or different, is an integer selected in the range of 2 to 6; each of R 's, which may be the same or different, is a group selected from the group consisting of hydrogen, alkyl groups, substituted alkyl groups, aryl groups and substituted aryl groups; and the block S is a polyoxymethylene copolymer residue represented by the following formula (2):



wherein each of R_1 's, which may be the same or different, is a group selected from the group consisting of hydrogen, alkyl groups, substituted alkyl groups, aryl groups and substituted aryl groups; j is an integer selected in the range of 2 to 6; $x = 95$ to 99.9 mole%, $y = 5$ to 0.1 mole%, $x + y = 100$ mole%; the units in an amount of y are present at random with respect to the units in an amount of x ; and the average of the number average molecular weights of the two blocks S in the formula (1) is 5,000 to 250,000.

[5] A polyoxymethylene resin composition according to claim 4, wherein as the polyoxymethylene resin of component (A), the above-mentioned copolymer (A-1) and a polyoxymethylene copolymer (A-2) comprising oxymethylene groups as its main repeating units and comprising oxyalkylene groups of 2 or more carbon atoms in an amount of 0.1 to 10 mole% based on the number of moles of the oxymethylene groups are used in combination, and the (A-1)/(A-2) weight ratio ranges from 100/0 to 10/90.

[6] A polyoxymethylene resin composition according to any one of claims 1 to 5, wherein the polymer having at least one block made of a hydrogenated aromatic vinyl compound-conjugated diene

compound random copolymer of component (B) is a block copolymer comprising at least one polymer block B1 comprising mainly aromatic vinyl compound units (the content of aromatic vinyl compound units: at least 90% by weight) and at least one aromatic vinyl compound-conjugated diene compound random copolymer block B2 (the content of aromatic vinyl compound units: less than 90% by weight and not less than 3% by weight),

the content of aromatic vinyl compound units ranges from 50 to 90% by weight and the main dispersion peak of $\tan \delta$ in the viscoelastic spectrum is at a temperature in the range of 60°C to -30°C.

[7] A polyoxymethylene resin composition according to any one of claims 1 to 6, wherein the polyolefin resin of component (C) is a modified product obtained by modification with an α, β -unsaturated carboxylic acid and/or an acid anhydride thereof.

[8] A molded article obtained by molding, cutting, or both molding and cutting of a polyoxymethylene resin composition according to any one of claims 1 to 7.